

## Original research

## Effectiveness of Self Instructional Module on use of Aseptic Technique during Patient Care among Staff Nurses in District Hospital, Shahjahanpur (U.P.)

Mrs. Blessy Thomas<sup>1</sup>, Adarsh Kumar<sup>2</sup>, Deeksha Rathour<sup>3</sup>, Deepsk Gangwar<sup>4</sup>, Ishika Shukla<sup>5</sup>, Raj Kaur<sup>6</sup>, Sonpal<sup>7</sup>

<sup>1</sup>H.O.D of Medical Surgical Nursing, Florence Nightingale College of Nursing, Shahjahanpur .Uttar Pradesh, India

<sup>2-7</sup>Students, Florence Nightingale College of Nursing, Shahjahanpur Uttar Pradesh, India

### Abstract

This study was conducted to assess the effectiveness of self instructional module on use of aseptic technique among staff nurses. The main objective of study was to assess the knowledge on aseptic technique among staff nurses in district hospital shahjahanpur (u.p.) A quantitative research approach was used to evaluate the knowledge regarding use of aseptic technique during patient care among staff nurses working in district hospital shahjahanpur U.P. and to find out the association between knowledge regarding use of aseptic technique during patient care among staff nurses with their selected demographic variables. The Descriptive research design was used for the study. The target population for the study was staff nurses who are working in district hospital Shahjahanpur. Samples were staff nurses in district hospital Shahjahanpur and sample size was 60 and sampling technique was structured questionnaire was used for this study. Data analysis was done by using descriptive and inferential statistics on the basis of objectives and hypothesis of the study and to compute data, master data sheet was prepared. The association between demographic variables and knowledge level was determined by chi square test. The result shows that the knowledge scores of staff nurses among 60, as adequate knowledge of staff nurses was (52) 86.67%, Inadequate knowledge of staff nurses as 8(13.33%) and nil knowledge level of staff nurses regarding aseptic technique as 0 %. The maximum mean knowledge score was 14.50, and the Standard Deviation was 11.15. The maximum level of knowledge was found moderately adequate. It was found in our study that there was no significant association between knowledge level and demographic variables except orientation of staff nurses.

**Keywords:** Self Instructional Module, Aseptic Technique, Patient Care, Staff Nurse.

### Introduction

If an incision is done into the skin, the body's major defence mechanism against infection is lost. At the time of surgery, the inner surfaces of the body are exposed to the environment may have contamination and infection. The effort must be made to prevent microorganisms entering into the incision and to avoid microorganisms if they have entered (antisepsis) [1]. The Aseptic technique provides a barrier between the microorganisms and the environment. The sterile cell culture depends upon a type of procedures to reduce the chance of contamination from these sources. The elements of aseptic technique are a sterile working area, maintaining personal hygiene, using sterile reagents and media, and sterile handling the equipments [2].

### Statement of the problem

A study to assess the effectiveness of self instructional module on use of aseptic technique during patient care among staff nurses.

### Objectives

1. To assess the knowledge on aseptic technique among staff nurses.
2. To assess the effectiveness of self instructional module on use of aseptic technique during patient care.
3. To find out the association between knowledge of staff nurses regarding aseptic technique and with their socio demographic variables.

### Hypothesis

1. There is a significant difference in practice of aseptic technique among staff nurses in district hospital of Shahjahanpur.
2. There is a significant association between pre test knowledge level of staff nurses regarding aseptic techniques and selected demographic variable.

## Methods & Materials

Quantitative research approach was considered the best approach to assess the effectiveness of self instructional module on use of aseptic technique during patient care among staff nurse. A Descriptive research design was adopted for the study. The study was undertaken in district hospital Shahjahanpur, due to geographical feasibility and availability of samples. Target population for the study includes staff nurse. The sample for the study was staff nurse who are working in district hospital, Shahjahanpur. The sample size for the study was 60 staff nurses only. The sampling technique was Purposive sampling technique [3].

### Methods of data collection

The proposed study was arranged after the acceptance of consolation committee of the college and permission was obtained from the CMS of district hospital Shahjahanpur. The data collection was done for 4 weeks in district hospital shahjahanpur. Data was collected from 60 samples that fulfilled inclusion and exclusion criteria. The written consent of the participants was obtained before data collection and assurance was given to study participants the confidentiality of data collected from the samples. The data was analyzed on the basis of objectives of the study by using descriptive and inferential statistics[4].

- Master data sheet was organized.
- Demographic variables were analyzed in terms of frequencies and percentages.
- Knowledge of staff nurse was presented in form of Mean, Median and Standard Deviation.
- Chi-square test was used to determine the relation between demographic variables and knowledge level of staff nurses.
- A planned questionnaire was ready in such a way it consists of two parts.

### Section 1: Demographic Data

It contains seven items for obtaining information regarding Age, Gender, Education, Religion, working area, source of Knowledge, and way of using aseptic technique.

### Section 2: Knowledge level of staff nurses on use of aseptic technique

The structured questionnaire schedule regarding aseptic technique consist of 30 multiple choice questions. Each question has three response with one correct answer, score 1 for each correct response in a single question and score 0 was given for wrong answers.

### Section 3: Effectiveness of self instructional module on use of aseptic technique during patient care

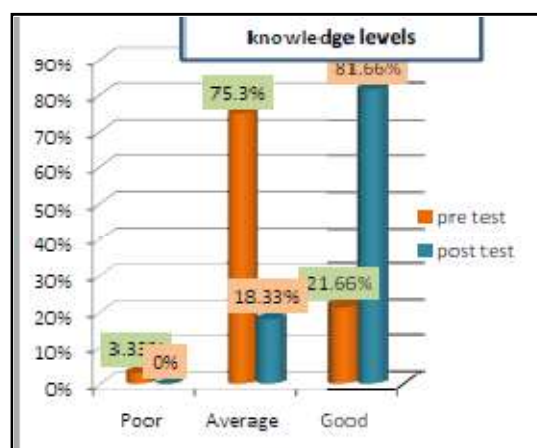
The Effectiveness of self instructional module on use of aseptic technique during patient care is identified by computing t-test.

### Section 4: Association between level of knowledge regarding aseptic technique among staff nurse and their demographic variables

#### Data Analysis and Interpretation

**Section 1:** Descriptive analysis of demographic variables.

**Section 2:** Knowledge level of staff nurses on use of aseptic technique.



**Figure 1:** The level of knowledge regarding aseptic technique among staff nurse

The above figure shows that out of 60 staff nurses 86% are belong to adequate knowledge, 13% are belong to inadequate knowledge 0% are belong nil knowledge.

### Section 3: Effectiveness of self instructional module on use of aseptic technique during patient care

**Table 1:** Knowledge level of staff nurses

Knowledge levels of staff nurses	Mean	SD	t-value	Table value	df	Level of significance
Pre- test	17.3	3.92	11.15	2.0	59	0.05
Post- test	24.8	4.44				

Table 1 explains that, the knowledge levels of staff nurses as mean-17.3, SD-3.92, and t-value-11.15, with the df is 59 and table value is 2.0, hence it shows the stated hypothesis is accepted.

This explains the effectiveness of self instructional module on improving knowledge of staff nurses on use of aseptic technique during patient care [5].

#### **Section 4: Association between level of knowledge regarding aseptic technique among staff nurse and their demographic variables**

The chi square value computed for the pre test knowledge of staff nurses regarding use of aseptic technique. There is no significant association between knowledge of staff nurses on use of aseptic technique with their demographic variable as age, gender, education, experience, area of working, knowledge, type of hospital, religion, availability except orientation [6].

### **Major findings of the study**

#### **Demographic data**

- Majority of the staff nurses according to age as, the age of (61%) were 25-35 years of age, (20%) were 35-45 year age, (18%) were 45-55 year of age.
- Majority of the staff nurses according to gender (3%) were Males and (96%) were Females.
- Majority of the staff nurses education (11%) ANM (83%) GNM (5%) B.Sc. Nursing.
- Majority of the staff nurses according to work experience as 40% were 2-5 year, 40% were 5-10 year and 20% 10 to above.
- Majority of the staff nurses according to working area, 56% were working under medical surgical ward, 2% of staff nurses working under obstetrical ward and 13% were working under neonatal ward.
- Majority of the staff nurses according to type of working hospital as 100% staff nurses were working in government hospitals and 0% were working under non government hospitals and 0% staff nurses working under private hospitals.
- Majority of the staff nurses according to religion, 68% were Hindus, 10% were Muslim and 21% were Christians.
- Majority of the staff nurses according to orientation to the hospital as 31% were 6 month, 26% were 1 year and 41% are never.
- Majority of the staff nurses according to availability 38% were Yes category and 10% were comes under the category of No and 26% were comes under inadequate category [7].

#### **The level of knowledge staff nurses on use of aseptic technique**

##### **The mean percentage and standard deviation of maximum knowledge score**

The maximum score of the mean was 24.8 and the standard deviation was 4.44 and the maximum level of knowledge was found to be moderately adequate.

#### **Effectiveness of self instructional module on use of aseptic technique during patient care**

The calculated “t” value is 11.15 with the table value 2.0 and df is 59 with probability is 0.05 level of significance. It shows Effectiveness of self instructional module on use of aseptic technique during patient care. Hence the stated hypothesis is accepted [8].

#### **Association between levels of knowledge of staff nurses on use of aseptic technique with their socio demographic variables**

The chi square value computed for the pre test knowledge of staff nurses regarding use of aseptic technique. There is no significant association between knowledge of staff nurses on use of aseptic technique with their demographic variable as age, gender, education, experience, area of working, knowledge, type of hospital, religion, availability except orientation to the hospital [9].

### **Discussion**

The present study was designed to assess the effectiveness of self instructional module among staff nurses on knowledge regarding aseptic technique among staff nurses in district hospital shahjahanpur. The sample was selected from the district hospital shahjahanpur. A pre test was given to assess the existing knowledge then, a self structured questionnaire was used to collect the data and analysis was computed by using descriptive and inferential statistics the finding were discussed in relation to the objectives and hypothesis [10].

### **Conclusion**

This study concludes that, among staff nurses knowledge levels as 2 (3.3%) had poor knowledge and 45 (75%) had average knowledge, and 13 (21%) had good knowledge and identified paired “t” value is 11.15 which is higher than the table value which indicates statistically significant difference between the knowledge level of pre test and post test.

### **Recommendations**

#### **Based on the findings, the following recommendations is made as**

1. The study can be replicated with large sample size

2. The similar study can be conducted on student nurses.
3. The research study can be done on different alternative techniques to reduce the level of infection.

## Reference

- [1] Marsden J.H.,” handbook of practical nurses book “published by B Jain 1st edition.
- [2] Basavanthappa B.T.,” nursing research ,2nd edition publishedby jaypee brothers.
- [3] Wani S A, Ahamad F, Zargar S A, Ahamad Z, Ahamad P, Tak H prevalence of intestinal parasites and associated with risk factors among school children in Srinagar city Kashmir India. J Parasitol.2007dec;93(6):1541-3.
- [4] Traub RJ, Robert son ID, Irwin P, Mencke N, and Andrew Thompson RC The prevalence associated with geohelminth infection in Tea growing communities Assam, India. Trop Med Int Health. 2004 Jun, 9(6): 688-701.
- [5] Awasthi S, verma T, kotecha PV, Venkatesh V, Joshi V, Roy S, prevalence and risk factors associated with worm infestation in pre-school children (6-23 months) in selected blocks and Indian J. Med Sci 2008; 62:484-91.
- [6] K Mother Balan,: The Guardian of family Health. Social Welfare 1989: 3-5. Savioli L; Mott KE; Yu SH intestinal worms. World Health. 1996 Jul-Aug; 49 (4): 28.
- [7] Khuroo M.S: Ascaris gastroenterol Clin North Am 1996 Sep; 25 (3) 553-77.
- [8] Ostan I, Kilimcioglu AA, Girginkardesler N, Ozyurt BC, Limoncu ME, Ok UZ. Health inequities: lower socio-economic conditions and higher incidences of intestinal parasites. BMC Public Health 2007 Nov 27; 7(147): 342.
- [9] Quihui L, Valencia ME, Crompton DW, Phillips S, Hagan P, Morales G et al. Role of the employment status and education of mothers in the prevalence of intestinal parasitic infections in Mexican rural school children. BMC Public Health 2006 Sep 6; 6: 225.
- [10] Giray H, Keskinoglu P. The prevalence of Enterobius vermicularis in school children and affecting factors. Turkiye Parazitol Derg 2006; 30(2): 99-100